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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Maurizio Lazzerini

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10/05/2006

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EXAMINER

CHANG, AUDREY Y

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/501,084		LAZZERINI, MAURIZIO	
	Examiner		Art Unit	
	Audrey Y. Chang		2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on **August 3, 2006** has been entered.
2. This Office Action is also in response to applicant's amendment filed on August 3, 2006, which has been entered into the file.
3. By this amendment, the applicant has amended claims 14, 16, 24, and 25.
4. Claims 14-26 remain pending in this application.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the **features recited in claims 24 and 25** concerning the structural relationships among the various elements and layers that are arranged "before", "below" or "above" each other must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief

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description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. **Claims 14-26 are objected to because of the following informalities:**

(1). The claims are generally *narrative* and indefinite, failing positively state the structural relationships among the various elements.

(2). Claim 14 is incomplete since it fails to provide structural and logical relationships among the various elements including: protective layer, layer of holographic material, monochrome background layer, adhesive layer, chromatically different regions and document. This makes the scopes of the claims extremely unclear.

(3). The phrase "an **optional** protective layer" recited in claim 14 is confusing and indefinite since it is not clear if the protective layer is or is not part of the claims. Also it is not clear what does it mean by "hologram is defined" as recited in claim 14. How can a hologram be "defined"? It is better read as "hologram is *recorded*".

(3). It is also not clear if the adhesive layer *is or is not* part of the security element, since the term "**in general**" makes the phrase not definitive.

(4). The amended phrase "said layer of holographic material being printed to said monochrome background layer" recited in claim 14 is confusing and wrong. It is not clear if the hologram has been recorded in the layer or not when the layer of hologram material is being "printed" to the background layer. One skilled in the art would know that the hologram **couldn't be printed** to other layer. This

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sentence is not making any sense if the hologram is being recorded in the layer. If it is not being recorded in the layer, where then is this hologram?

(5). The phrase “said demetallization regions” recited in claim 19 is confusing and indefinite since it lacks proper antecedent basis from its based claim.

(6). Claims 24 and 25 are very confusing and indefinite since it is not clear what are these external metallization layer and the intermediate metallization layer and how are they related to the layers in its based claim. A structural relationship and logical relationship for the various elements **are required** to make the claims complete. The claims has been amended to include the phrases “arranged *before* said adhesive layer and *below* which said monochromatic background layer” and “*above* said metallization regions and *below* said adhesive layer” (recited in claim 25) that are very confusing since it is not clear what is considered to be “before”, “below and “above”? What are these “metallization regions”? It is still not clear the terms “external” and the “intermediate” are reference to what. Also it is not clear what does the phrase “said regions forming, said chromatically different regions with respect to the background constituted by said intermediate metallization layer” mean. The scopes of the claims are unclear.

(7). Claim 26 is really confusing since it is not clear if the layer of the protective lacquer is or is not part of the security element? If it is part of the security element then how can it be between the security element and the adhesive layer? If it is not then what is this protective lacquer layer?

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 14 are rejected under 35 U.S.C. 102(b) as being anticipated by the patent issued to Chatwin et al (PN. 5,310,333).

Chatwin et al teaches a *security device* that is comprised of *hologram* wherein the security device comprises a *protective layer* (6, Figure 1), a *coating* (2) serves as the *layer of holographic material* having a *diffractive structure or hologram* (3, column 5, lines 21-34)) recorded therein, a *metal layer* (5) serves as the *monochrome background layer* with *demoralized regions* having *ink images* (4) that serves as the *chromatically different regions* (different from the background metal layer) that are *visually detectable*, (please see column 2, lines 54-62, column 6, lines 61-69). Chatwin et al teaches that adhesion is used to adhere the optical device to substrate of intended document, (please see column 6, line 22-39). The feature concerning the layer of holographic material is printed to the background layer is a *product-by-process* limitations that are not given any patentable weight for it does not differentiates the final product of the security device of the instant application from the prior art reference.

With regard to claims 15-19, Chatwin teaches that the background layer is constituted with a first metallization layer with demetallization regions having chromatically different printings (4) that are aligned and superimposed with the hologram.

With regard to claims 20 and 21, the metal layer (5) can be identified as a combination of a *first and second metallization layers*, with the first metallization layer contains the demetallization regions having the chromatically different printings (4) therein and the second metallization layer that has no demetallization regions and no printings, (please see Figure 1), wherein both metallization layers are made of *aluminum*, (please see column 7, line 24). The printings (4) are on the second metallization layers and the first metallization layer can be considered as under the second metallization layer.

This reference has therefore anticipated the claims.

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Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 14-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Curiel (PN. 6,715,797) in view of the patent issued to Heckenkamp et al (PN. 6,337,752).**

Curiel teaches a temper resistant article, which serves as the *security element*, wherein the article comprises a *metal foil or metallized layer* (618 in Figures 12-13) that serves as the *background monochrome layer*, a *hologram layer* (610) having *hologram recorded therein* being associated with the metal foil layer (12 or 618) and on the metal foil provided with a plurality of demetallization regions (620-638) and printed information (616, Figure 13) that serve as the regions being *chromatically different* from the background foil and are **visually detectable**, (please see Figures 12-13 and columns 12-13). Curiel further teaches that the article is also formed with a *protective layer* (606). It is implicitly true that demetallized regions are chromatically different from metallized regions. Curiel also in a different embodiment teaches that *color bands* (60-74, Figures 1 and 2) can be provided at demetallization regions to provide chromatically different regions and effect to the security element. Such modification would have been obvious to one skilled in the art to provide full color effect to the security element.

This reference has met all the limitations of the claims. Curiel teaches that the article can be bonded to a document such as a credit card, (please see column 3, lines 47-55) but it does not teach explicitly that the bonding is via an adhesive layer. However using adhesive layer to adhere the security element to the document intended to be protected is rather well known in the art as demonstrated by the teachings of Heckenkamp et al. **Heckenkamp** in the same field of endeavor teaches an adhesive layer

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(26, Figure 8) is used to attach the security element having a lacquer protective layer (25), with regard to claim 26, to a document (30). It would then have been obvious to one skilled in the art to apply the teachings of Heckenkamp et al to use adhesive layer to adhere the security element to the document for the benefit of enhancing the bonding property. Furthermore, with regard to claim 26, it would have been obvious to one skilled in the art to add a protective lacquer layer between the security element and the adhesive layer for the benefit of further protecting the security element from being damaged when attaching the element to the document via adhesive layer.

Claim 14 has been amended to include the feature that the layer of holographic material is *printed* to monochrome background layer. This phrase has been objected to for the reasons stated above. Furthermore, this product-by-process limitation is not given patentable weight per se since it does not differentiate the instant application from the prior art reface.

With regard to claims 15, and 18-23, Curiel teaches that the background layer is provided by a metallized layer (618) and demetallized regions (620-638) are formed in the metallized layer to formed a *plurality of metallized layers* (650-670) and *demetallized layers* (620-638). The demetallized layers are chromatically different regions. Curiel teaches that the metallized layers can be formed by *aluminum*, (please see column 13, lines 5). Curiel teaches that the metallized layer has a thickness of about 80 to 120 Angstroms, (please see column 13 and lines 6-7). Although it does not teach explicitly if the first and second metallized layer have either the same or different thickness such modifications are considered to be obvious matters of design choices for the benefit of providing different decorative effects..

With regard to claims 16-17, Curiel teaches that the a hologram (such as 672, 673, 674 Figure 13 and column 12, lines 32-33) are recorded in the hologram layer and the written information (616) which serves as the chromatically different regions are superimposed on the hologram, (pleases see column 12, lines 30-40). Also in different embodiment, Curiel teaches that the a hologram (such as 42-58, for

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Figures 1-2) are recorded in the hologram layer and the color bands or the chromatically different regions are superimposed on the hologram, (please see column 7, lines 25-39).

Claims 24 and 25 are *completely unclear* for the reasons stated above they can only be examined in the broadest interpretation. One can certainly arbitrarily divided and identify the metallization layers to have an *intermediate* layers and an *external layer*, with the external layer being the part facing the base member (602) and the part of the metallized layer facing the holographic material layer being the intermediate layer. Curiel teaches that different metallic materials can be used to give aesthetics or efficient color contrast, (please see column 17, lines 35-40). It would then have been obvious to one skilled in the art to make the external and intermediate metallized layers with different metallic materials for the benefit of creating different aesthetic effect. The demetallization regions (620 to 638) can be identified as the demetallization regions for the intermediate regions

11. Claims 14-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Chatwin et al (PN. 5,310,222).

The security device comprises hologram taught by Chatwin et al as described for claim 14 above has met all the limitations of the claims.

With regard to claims 22 and 23, this reference does not teach explicitly if the first and second metallization layers, (the one with the printings and the one without) are of the same or different thickness. However it has to be one of the cases, (same or different), and the thickness is really decided by the thickness of the printings and such are of obvious design choices to one skilled in the art for the benefit of fitting the specific design needs.

With regard to claims 24 and 25, the metal layer (5) can be identified as a combination of an *intermediate* and *external metallization layers*, with the intermediate metallization layer contains the demetallization regions having the chromatically different printings (4) therein and the *external* layer that

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has no demetallization regions and no printings, (please see Figure 1). The intermediate metallization layer can be considered above or below the external metallization layer since no definite structural relationships have been given and defined. Although this reference does not teach that the two metallization layers are of different material such modification are considered to be obvious to one skilled in the art for the benefit of providing different aesthetic effect to the security device.

With regard to claim 26, it is not clear what exactly is this protective lacquer layer that is between the security device and the adhesive layer, it really cannot be examined here.

Response to Arguments

12. Applicant's arguments filed on August 1, 2006 have been fully considered but they are not persuasive.

Applicant's arguments are mainly drawn to amended feature that have been fully addressed in the paragraph above.

Contact Information

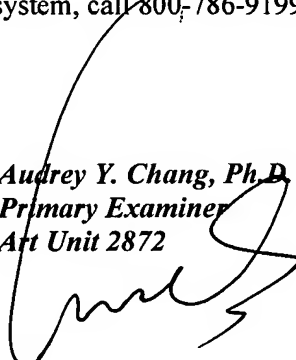
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Audrey Y. Chang, Ph.D.
Primary Examiner
Art Unit 2872



A. Chang, Ph.D.